1930474 - R8 SEMS

5W-34

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 11 / 24 / 88

Time 13:00

Sampler SW
(Initials)

N of Anchor Hill

Sampling Station Number..... SW-34

Temperature (degrees C)..... —

pH..... —

Conductivity (umhos/cm)..... —

Flow (gpm)..... dry

Water Sample (Yes/No)..... No

Filtered Metals (Yes/No)..... No

Number/Type Bottles..... —

Comments.....

site dry all along draw in this general area
- site ~ 1/4 mile below BED & BES-04

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 9 / 6 / 18 90

Time _____

Sampler mt
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... _____

pH..... _____

Conductivity (umhos/cm)..... _____

Flow (gpm)..... _____

Water Sample (Yes/No)..... _____

Filtered Metals (Yes/No)..... _____

Number/Type Bottles..... _____

Comments..... _____

No flow No Sample Quarterly

GROUND-WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 6 / 5 / 90

Time _____

Sampler mt.
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... 14

pH..... 6.9

Conductivity (umhos/cm)..... 55

Depth to Water (ft)..... 6

Water Sample (Yes/No)..... _____

Filtered Metals (Yes/No)..... _____

Number/Type Bottles..... _____

Comments..... _____

GROUND-WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 4 / 17 / 90

Time 1620

Sampler MA MB MK.
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C).....

pH..... 6.84

Conductivity (umhos/cm)..... 63

Depth to Water (ft).....

Water Sample (Yes/No).....

Filtered Metals (Yes/No).....

Number/Type Bottles..... CN MIN DISS total Nut

Comments.....

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 6-5-90

Meter Used: floating Chip

Sampler: mt.

Stream Width: 2.5'

Station No.. SW-34

Total Flow: .12

Gauge Height: _____

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0-.5	.25	.5	.05	.025	0	0
.5-1	.75	.5	.1	.05	.3	.015
1-1.5	1.25	.5	.2	.1	.4	.04
1.5-2	1.75	.5	.2	.1	.4	.05
2-2.5	2.25	.5	.1	.05	.3	.015
					TOTAL	.12

Comments: _____

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 5-9-90

Sampler: mt

Station No.: SW-34

Gauge Height: _____

Meter Used: Pygmy

Stream Width: 3.5'

Total Flow: .5725

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0 - .5	.25	.5	.4	.2	.1	.02
.5 - 1	.75	.5	.4	.2	.3	.06
1 - 1.5	1.25	.5	.45	.225	.5	.1125
1.5 - 2	1.75	.5	.35	.175	.4	.07
2 - 2.5	2.25	.5	.35	.175	.8	.14
2.5 - 3	2.75	.5	.4	.2	.6	.12
3 - 3.5	3.25	.5	.2	.1	.5	.05
					TOTAL	.5725

Comments: _____

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 2-25-90

Meter Used:

Sampler: mt.

Stream Width:

Station No.: SW-34

Total Flow: 0

Gauge Height:

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs

MID-CONTINENT
TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS
AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
SAMPLE DATE: 04/17/90
SAMPLE TIME:

LAB NUMBER: 19900418106
REPORT DATE: 04/20/90

MARTY TALLEY
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	81.5
Hardness	.
PH	5.99
Solids, Dissolved, mg/l	56.
Solids, Suspended, mg/l	9.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	22.
Bicarbonate	26.8
Carbonate, mg/l	0.
Chloride, mg/l	.5
Cyanide, Total, mg/l	.0006
Cyanide, WAD, mg/l	.0013
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	18.

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	.002	.005
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	8.4	.
Chromium	.	.
Cobalt	.	.
Copper	.004	.005
Gold	<.001	<.001
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	1.10	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.47	.
Selenium	<.001	.001
Silicon	.	.
Silver	.	.
Sodium	1.87	.
Strontium	.	.
Vanadium	.	.
Zinc	.021	.044

Dean Durand
4/20/90

MID-CONTINENT TESTING LABORATORIES, INC.
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2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
SAMPLE DATE: 04/17/90
SAMPLE TIME:

LAB NUMBER: 19900418106
REPORT DATE: 04/20/90

MARTY TALLEY
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	81.5
Hardness	.
PH	5.99
Solids, Dissolved, mg/l	56.
Solids, Suspended, mg/l	9.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	22.
Bicarbonate	26.8
Carbonate, mg/l	0.
Chloride, mg/l	.5
Cyanide, Total, mg/l	.0006
Cyanide, WAD, mg/l	.0013
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	18.

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	.002	.005
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	8.4	.
Chromium	.	.
Cobalt	.	.
Copper	.004	.005
Gold	<.001	<.001
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	1.10	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.47	.
Selenium	<.001	.001
Silicon	.	.
Silver	.	.
Sodium	1.87	.
Strontium	.	.
Vanadium	.	.
Zinc	.021	.044

Dean Durand
4/20/90

MID-CONTINENT
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AND ENVIRONMENTAL TESTING

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(605) 348-0111

SAMPLE NAME: SW-34
SAMPLE DATE: 06/05/90
SAMPLE TIME:

LAB NUMBER: 19900606104
REPORT DATE: 06/07/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	75.0
Hardness	.
PH	6.23
Solids, Dissolved, mg/l	113.0
Solids, Suspended, mg/l	4.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	48.0
Bicarbonate	58.6
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	<5.00

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	<.001
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.003	.023
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	3.33	.
Strontium	.	.
Vanadium	.	.
Zinc	.018	.020

Amy M. Poyed
06-07-90

MID-CONTINENT TESTING LABORATORIES, INC.
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2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
SAMPLE DATE: 06/05/90
SAMPLE TIME:

LAB NUMBER: 19900606104
REPORT DATE: 06/07/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	75.0
Hardness	.
PH	6.23
Solids, Dissolved, mg/l	113.0
Solids, Suspended, mg/l	4.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	48.0
Bicarbonate	58.6
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	<5.00

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	<.001
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.003	.023
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	3.33	.
Strontium	.	.
Vanadium	.	.
Zinc	.018	.020

Amy M Bayed
06-07-90

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 01 / 11 /89

Time 14:45

Sampler SW
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... —

pH..... —

Conductivity (umhos/cm)..... —

Flow (gpm)..... dry

Water Sample (Yes/No)..... No

Filtered Metals (Yes/No)..... No

Number/Type Bottles..... —

Comments.....

froze to bottom (some ice found)

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 5 / 7 /89

Time 10:55

Sampler SW
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... 6.6

pH..... 6.45

Conductivity (umhos/cm)..... 61.6

Flow (gpm).....

Water Sample (Yes/No).....

Filtered Metals (Yes/No).....

Number/Type Bottles..... 4

Comments.....

flows mostly from drain culvert

segment length = A-C = 3.7'

A = 2.0'	B 2.3'	C 2.5'
.45'	.48'	.45'
.47	.56	.53
.40	.55	.42
.24	.40	.43

1.56	1.51
1.49	1.47
1.50	1.74
1.41	1.51
1.85	1.39

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 6 / 15 / 89

Time 15:36

Sampler MA - SW
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... 9.1

pH..... 6.45

Conductivity (umhos/cm)..... 137

Flow (gpm)..... 2 gpm

Water Sample (Yes/No).....

Filtered Metals (Yes/No).....

Number/Type Bottles..... 4

Comments.....

visual flow

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 6 / 30 / 89

Time 8:25

Sampler MA
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... 10.2

pH..... 8.65

Conductivity (umhos/cm)..... 143

Flow (gpm)..... 8gmp

Water Sample (Yes/No)..... Yes

Filtered Metals (Yes/No)..... Yes

Number/Type Bottles..... 4

Comments.....

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 9 / 6 / 89

Time 14:15

Sampler MA
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C).....

pH.....

Conductivity (umhos/cm).....

Flow (gpm)..... no flow

Water Sample (Yes/No)..... (No circled)

Filtered Metals (Yes/No)..... (No circled)

Number/Type Bottles.....

Comments.....

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2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
DESCRITPION:
SAMPLE DATE: 05/07/91
SAMPLE TIME:
SAMPLED BY:

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

ACCOUNT NUMBER: W1000
LAB NUMBER: 19910508108
DATE RECEIVED: 05/08/91
TIME RECEIVED: 12:30 PM
REPORT DATE: 05/09/91

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	863.
Hardness	.
PH	7.00
Solids, Dissolved, mg/l	57.5
Solids, Suspended, mg/l	<5.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	28.0
Bicarbonate	34.2
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	<10.

METALS mg/l	DISSOLVED	TOTAL
Aluminum	.	.
Antimony	.	.
Arsenic	<.001	.005
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.006	.015
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Magnesium	.	.
Manganese	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.005	<.005
Silicon	.	.
Silver	.	.
Sodium	2.54	.
Strontium	.	.
Vanadium	.	.
Zinc	<.050	.055

APPROVED BY: Mike M Powell

DATE: 05-09-91

MID-CONTINENT
TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS
AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
DESCRITPION:
SAMPLE DATE: 06/12/91
SAMPLE TIME:
SAMPLED BY:

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

ACCOUNT NUMBER: W1000
LAB NUMBER: 19910613115
DATE RECEIVED: 06/13/91
TIME RECEIVED: 01:30 PM
REPORT DATE: 06/14/91

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	92.9
Hardness	.
PH	7.14
Solids, Dissolved, mg/l	61.6
Solids, Suspended, mg/l	<10.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	34.0
Bicarbonate	41.5
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	25.0

METALS mg/l	DISSOLVED	TOTAL
Aluminum	.	.
Antimony	.	.
Arsenic	<.001	.002
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.004	.036
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Magnesium	.	.
Manganese	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.005	<.005
Silicon	.	.
Silver	.	.
Sodium	2.48	.
Strontium	.	.
Vanadium	.	.
Zinc	<.050	.054

APPROVED BY: K. Heydon

DATE: 6/14/91

MID-CONTINENT
TESTING LABORATORIES, INC.
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AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
DESCRITPION:
SAMPLE DATE: 06/12/91
SAMPLE TIME:
SAMPLED BY:

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

ACCOUNT NUMBER: W1000
LAB NUMBER: 19910613115
DATE RECEIVED: 06/13/91
TIME RECEIVED: 01:30 PM
REPORT DATE: 06/14/91

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	92.9
Hardness	.
PH	7.14
Solids, Dissolved, mg/l	61.6
Solids, Suspended, mg/l	<10.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	34.0
Bicarbonate	41.5
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	25.0

METALS mg/l	DISSOLVED	TOTAL
Aluminum	.	.
Antimony	.	.
Arsenic	<.001	.002
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.004	.036
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Magnesium	.	.
Manganese	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.005	<.005
Silicon	.	.
Silver	.	.
Sodium	2.48	.
Strontium	.	.
Vanadium	.	.
Zinc	<.050	.054

APPROVED BY: K. Heydon

DATE: 6/14/91

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 1 / 14 / 91

Time _____

Sampler mt
(Initials)

Sampling Station Number..... SW-34

Temperature (degrees C)..... _____

pH..... _____

Conductivity (umhos/cm)..... _____

Flow (gpm)..... DRY

Water Sample (Yes/No)..... _____

Filtered Metals (Yes/No)..... _____

Number/Type Bottles..... _____

Comments..... _____

SURFACE WATER STREAM GAUGING - FIELD FORM

DATE:	5-7-91	METER USED:	Pygmy
SAMPLER:	mt	STREAM WIDTH:	1
STATION NO:	SW-34	TOTAL FLOW:	83.028
GAUGE HEIGHT:		WATER SAMPLE (Yes/No):	
TEMPERATURE (degrees C):	8	FILTERED METALS (Yes/No):	
pH:	8.9	NUMBER/TYPE BOTTLES:	
CONDUCTIVITY (umhos/cm):	60	FLOW (gpm):	83.028

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0-.25	.125	.25	.25	.0625	1.	.0625
.25-.5	.350	.25	.2	.05	.6	.03
.5-.75	.625	.25	.2	.05	.6	.03
.75-1	.850	.25	.25	.0625	1.	.0625
						.185
					TOTAL	83.028

COMMENTS:

SURFACE WATER STREAM GAUGING - FIELD FORM

DATE:	6-12-91	METER USED:	Pygmy
SAMPLER:	MA TC	STREAM WIDTH:	4'
STATION NO:	SW-34	TOTAL FLOW:	.32
GAUGE HEIGHT:		WATER SAMPLE (Yes/No):	
TEMPERATURE (degrees C):	14	FILTERED METALS (Yes/No):	
pH:	8.3	NUMBER/TYPE BOTTLES:	min diss met Tot
CONDUCTIVITY (umhos/cm):	70	FLOW (gpm):	143.616

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0-1	.5	1	.4.5	.45	0	0
1-2	1.5	1	.5	.5	.2	.1
2-3	2.5	1	.4.5	.45	.4	.18
3-4	3.5	1	.2	.2	.2	.04
						.32
					TOTAL	143.616

COMMENTS:

SURFACE WATERSTREAM GAUGING - FIELD FORM

DATE:	4-22-92	METER USED:	
SAMPLER:	Sm	STREAM WIDTH:	.6
STATION NO:	SW-34	TOTAL FLOW:	
GAUGE HEIGHT:		WATER SAMPLE (Yes/No):	YES
TEMPERATURE (degrees C):	5.7	FILTERED METALS (Yes/No):	YES
pH:	6.9	NUMBER/TYPE BOTTLES:	1mig, 1out, 2met
CONDUCTIVITY (umhos/cm):	110	FLOW (gpm):	6

Interval	Midpoint	Width	Depth	Area (s/ft)	Velocity (fps)	Qcfs
0		.23/.23	.2	.12	14.42	.013
		/.15			14.51	
1		.175/.2	.17	.1	17.74	
		/.125			16.71	
2		.175/.15	.155	.093	12.86	
		/.14			15.5	
				.1	17.15	
					13.3	
					15.92	
					15.84	
					14.99	
					15.15	
					15.93	
					14.4	
					16.39	
					15.392	
					.13 c/s	
					TOTAL	

COMMENTS

SURFACE WATER STREAM GAUGING - FIELD FORM

DATE:	5-21-92	METER USED:	
SAMPLER:	Sm	STREAM WIDTH:	
STATION NO:	SW-34	TOTAL FLOW:	
GAUGE HEIGHT:		WATER SAMPLE (Yes/No):	YES
TEMPERATURE (degrees C):	6.7 12:00	FILTERED METALS (Yes/No):	YES
pH:	7.5	NUMBER/TYPE BOTTLES:	1min/1wet, 2met
CONDUCTIVITY (umhos/cm):	90	FLOW (gpm):	30 GSF

Interval	Midpoint	Width	Depth	Area (s/t)	Velocity (fps)	Qcfs
					TOTAL	

COMMENTS:

MID-CONTINENT
TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS
AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-34
DESCRITPION:
SAMPLE DATE: 04/22/92
SAMPLE TIME:
SAMPLED BY:

ACCOUNT NUMBER: W1000
LAB NUMBER: 19920424101
DATE RECEIVED: 04/23/92
TIME RECEIVED: 12:30 PM
REPORT DATE: 04/24/92

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	148.
Hardness	.
PH	6.36
Solids, Dissolved, mg/l	102.
Solids, Suspended, mg/l	<10.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	52.
Bicarbonate	63.4
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Fluoride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	11.8

METALS mg/l	DISSOLVED	TOTAL
Aluminum	.	.
Antimony	.	.
Arsenic	<.001	.001
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	<.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.004	.005
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Magnesium	.	.
Manganese	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.005	<.005
Silicon	.	.
Silver	.	.
Sodium	3.43	.
Strontium	.	.
Vanadium	.	.
Zinc	.058	.059

APPROVED BY: K. Lybyton

DATE: 4/24/92